

Transport for London and Rinnai

Transport for London (TfL) has installed the total Rinnai water heating system solution of continuous flow water heaters, BMS controls, remote monitoring facilities, Nexus electrolytic scale inhibitors and flexible flueing systems, all supported by energy and carbon footprint analysis.

The site is the TfL Ashfield House Training Centre in West London and the system supplied comprises – 4 x N Series Sensei 1600i units on cascade frames with an additional 500L buffer vessel.

The new system will service all the hot water needs throughout the building. Provided there are constant supplies of water and gas Rinnai Continuous Flow Hot Water Systems will deliver a constant flow of temperature controlled hot water.

The system also includes multiple valve kits and unvented cylinders to support compliance and enable best practice, in system design. The innate technology provides high efficiencies and remote monitoring capabilities by the seamless integration and monitoring with the onsite BMS.

The new N Series arrangement incorporates connectivity controls to ensure each appliance is visual and addressable on the BMS system. The water heater array will provide over 3000 litres of continuous hot water at 60 degrees.

The new hot water heating system at Ashfield House was designed by leading building engineering consultants Norman Disney & Young. Installation was carried out by Maracom, a multi-disciplined installation specialist, established since 1951.

Theodore Jones, CEng MCIBSE is Infrastructure Manager for TfL, and he commented on the organization's approach to its hot water needs and facilities: "We chose to install a cascade of Rinnai's N Series water heaters to provide a robust and resilient system, able to cope with periods of high hot water demand in this 9-storey building. The N series units are compact and lightweight, affording ease of transportation to the 9th floor plant room. The inherent modularity of this solution allowed for a rapid installation, and the finished system exhibits a smaller floor footprint than traditional HWS plant. This installation supports TfL's strategy of deploying the most energy efficient and reliable plant in our estate."



Rinnai

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Case Study

Chris Goggin for Rinnai said: ‘This installation contains many facets of our total product offering, all of which is aimed at maximum efficiency in both engineering and financial terms. On demand limitless hot water with precise, controlled temperature is the cornerstone of our offering today to all sites of any size or use.

“At Ashfield House we have supplied the new N series, Nexus scale protection, Remote Monitoring, common header flues, cascade frame leading towards complete system efficiency, interoperability, compliance with all legislation or Codes and Standards of Practices.”

TfL is the integrated transport authority responsible for meeting stated strategies and commitments on transport in London. In daily effect TfL manages the day-to-day operation of the Capital’s public transport network and manage London’s main roads.

TfL’s programme of transport capital investment is one of the world’s largest. It is building the Elizabeth line, modernising Tube services and stations, transforming the road network and always aiming for greater safety in all forms of transport around London, one the world’s biggest and busiest cities

The Rinnai Sensei N Series is the first ever continuous flow hot water heating unit manufactured with stainless steel heat exchangers to be available in the UK – this gives a greatly extended working life at optimum performance to each of the four models in the range. Added to this is the Sensei N Series market leading extended warranties.

The four models are: the N1600i giving 954 litres per hour; the N1600e (external) also giving 954 litres per hour (at 50 degrees); the N1300i giving 775 litres per hour and the N1300e also giving 775 litres per hours of temperature controlled at 50 degrees. The two 1600s have load profiles of XXL and are water efficiency class A rated, while the 1300s are load profile XL and are also water efficiency class A rated.

Other features include:

- Flue up to 30+ metres for concentric
- Turbo Fan
- Built-in controller as standard on both internal and external models
- Cascade Cable assembly allows up to 24 water heaters to be connected and function as one total and complete system. Any number of N-series Rinnai water heaters can be manifolded together enabling the largest capacities on the market.
- Built in flue damper
- Air inlet filter
- Frost Protection – minus 15°C on the internal versions and minus 20 °C on the external versions
- New PCB Design
- Controller as standard – Lockable, set up of appliance, temperature set up to 75°C
- Maintenance Monitor for engineers



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